

1 - 9/ A medication delivery pen comprising:

a housing having proximal and distal ends and including a holder for containing a cartridge containing a medication to be delivered through a conduit connected to the cartridge,

a piston rod having a not circular cross-section and an outer thread, and

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a piston rod drive for driving said piston rod in a distal direction inside the cartridge, said piston rod drive including a first part rotatably mounted within said housing and mating with the not circular cross-section of said piston rod, and a second part integral with said housing and having an internal thread mating the thread of said piston rod to form a self-locking thread connection, wherein rotation of said first part in a first direction relative to said second part drives said piston rod in a distal direction; and

a one-way coupling comprising:

a) an annular ring of equally spaced internal ratchet notches situated on the inside of said housing, which internal notches have a steep front edge and a ramp shaped trailing edge,

b) a pawl surrounding said piston rod and having at least a pair of resilient arms, each arm having a free end, said pawl being connected with said first part of said piston rod drive, and

c) means situated on said free end of each arm for engaging in the internal ratchet notches of said annular ring, which means abuts said steep front edge

of said internal notches, thereby preventing said pawl body from rotating in one direction relatively to said housing, the prevented direction being one by which the piston rod would be transported in a proximal direction.

2 ~~10~~. A medication delivery pen according to claim ~~9~~¹, wherein said two or more arms are disposed with the same relative spacing around the circumference of said pawl.

3 ~~11~~. A medication delivery pen according to claim ~~9~~¹, wherein said steep front edges of said internal notches on opposite sides of said annular ring are parallel to each other.

4 ~~12~~. A medication delivery pen according to claim ~~9~~¹, wherein said arms extend circumferentially from a body portion of said pawl and wherein said means situated on said free end of each arm is the end-surface of the arm lying circumferentially opposite said pawl and abutting said steep front edge of said internal notches.

5 ~~13~~. A medication delivery pen according to claim ~~9~~¹, wherein said arms extend circumferentially from said pawl body and wherein said means situated on said free end of each arm includes a protrusion.

6 ~~14~~. A medication delivery pen comprising:
a housing having proximal and distal ends and including a holder for containing a cartridge containing a medication to be delivered through a conduit connected to said cartridge,

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a piston rod having a not circular cross-section and an outer thread, and
a piston rod drive for driving said piston rod in a distal direction inside the
cartridge, said piston rod drive including a first part having an internal thread mating
the thread of said piston rod to form a self-locking thread connection, and a second
part integral with said housing and mating with the not circular cross-section of said
piston rod, wherein rotation of said first part in a first direction relative to said
second part drives the piston rod in a distal direction; and

a one-way coupling comprising:

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- a) an annular ring of equally spaced internal ratchet notches situated on the
inside of said housing, which internal notches have a steep front edge and a
ramp shaped trailing edge,
 - b) a pawl surrounding said piston rod and having at least a pair of resilient
arms, each arm having a free end, said pawl being connected with said first
part of said piston rod drive, and
 - c) means situated on said free end of each arm for engaging in the internal
ratchet notches of said annular ring, which means abuts said steep front edge
of the internal notches, thereby preventing said pawl body from rotating in
one direction relatively to said housing, the prevented direction being one by
which the piston rod would be transported in a proximal direction.

7 ~~15~~. A medication delivery pen according to claim ~~14~~⁶, wherein said two or more arms are disposed with the same relative spacing around the circumference of said pawl.

8 ~~16~~. A medication delivery pen according to claim ~~14~~⁶, wherein said steep front edges of said internal notches on opposite sides of said annular ring are parallel to each other.

9 ~~17~~. A medication delivery pen according to claim ~~14~~⁶, wherein said arms extend circumferentially from a body portion of said pawl and wherein said means situated on said free end of each arm is the end-surface of the arm lying circumferentially opposite said pawl and abutting said steep front edges of said internal notches.

10 ~~18~~. A medication delivery pen according to claim ~~14~~⁶, wherein said arms extends circumferentially from said pawl body and wherein said means situated on said free end of each arm includes a protrusion.

11 ~~19~~. A medication delivery pen comprising:
a housing having proximal and distal ends and including a holder for containing a cartridge containing a medication to be delivered through a conduit connected to said cartridge,
a piston rod having a not circular cross-section and an outer thread, and
a piston rod drive for driving said piston rod in a distal direction inside the cartridge, said piston rod drive including a first part having an internal thread mating